3/27/2009

1 1 IN THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF OKLAHOMA 2 3 STATE OF OKLAHOMA, et al., 4 Plaintiff, 5 CASE NO. 05-CV-00329-GKF SAJ VS. 6 TYSON FOODS, INC., et al., 7 Defendants. 8 DEPOSITION OF MICHAEL DAVID SMOLEN, Ph.D. TAKEN ON BEHALF OF THE DEFENDANTS 9 ON MARCH 27, 2009, BEGINNING AT 9:30 A.M. IN STILLWATER, OKLAHOMA 10 APPEARANCES: 11 On behalf of the PLAINTIFF: 12 Mr. Robert Nance RIGGS, ABNEY, NEAL, TURPEN, ORBISON & LEWIS 13 5801 North Broadway, Suite 101 Oklahoma City, Oklahoma 73118 14 (405)843 - 9909rnance@riggsabney.com 15 On behalf of the DEFENDANT-PETERSON FARMS, INC.: 16 Mr. Scott McDaniel MCDANIEL, HIXON, LONGWELL & ACORD 17 320 South Boston, Suite 700 Tulsa, Oklahoma 74103 18 (918) 382-9200 smcdaniel@mcdaniel-lawfirm.com 19 20 21 22 23 24 25 REPORTED BY: Laura L. Robertson, CSR, RPR

## SMOLEN, MICHAEL

3/27/2009

5

1	WHEREUPON,									
2	MICHAEL DAVID SMOLEN,									
3	after having been first duly sworn, deposes and says									
4	in reply to the questions propounded as follows,									
5	to-wit:									
6	BY MR. MCDANIEL:									
7	Q. Dr. Smolen, would you state your full name,									
8	please, sir?									
9	A. Michael David Smolen.									
10	Q. Would you give us both your work and home									
11	addresses?									
12	A. Work address is 218 Ag Hall, Stillwater,									
13	74078. Home address, 3409 South Washington Street,									
14	Stillwater, 74074.									
15	Q. All right. Thank you. Who is your									
16	employer?									
17	A. Oklahoma State University.									
18	Q. What is your position?									
19	A. I'm a professor of Biosystems and Ag									
20	Engineering, and an extension appointment, 100 percent									
21	extension.									
22	Q. All right. Can you explain to us what your									
23	job responsibilities are?									
24	A. I serve as the water quality coordinator for									
25	extension programs and division of agriculture and									

## SMOLEN, MICHAEL

3/27/2009

	A.	Most	of	the		they	have	a a	lot	of	gravel,	so
an	unatte	nded	road	wou	ıld	proba	ably	hav	re mo	ore	gravel	on
it	_											

- Q. In the Illinois?
- A. In the Illinois, and it is local gravel, pretty much. These are pretty fine textured soils in this case, you could have anything from fine textured to coarse in the Illinois River.

I would expect you would find some that look like that.

- Q. Okay. Flip a couple more slides over, and you have a heading Erosion on Unpaved Rural Roads, and your note at the bottom says, "Annual rates of erosion can exceed 100 kilograms per meter of road, or about 200 tons per mile." Have you found that page?
  - A. Yes, I have got it.
- **Q.** What is, generally what is the basis for this, these erosion rates that you have identified here?
- A. I don't remember specifically on this one. We had some numbers from this study, and I think they are in this range.
- Q. Obviously, sir, I have a particular interest in the Illinois River Watershed, and I know this study is not in the Illinois River Watershed. But if I want

1

2

3

4

5

6

7

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

3/27/2009

110

to translate this annual rate of erosion from dirt roads from your study to the Illinois River Watershed, is this 200 tons per mile, is that a reasonable range for me to apply to the Illinois River Watershed dirt roads?

- A. It is probably an upper limit. I don't know of any studies in there to really pin it down. I expect the Illinois River is probably a little bit less erodible than this area where we studied.
  - Q. But 200 would not be out of the question?
- A. There are some places that you could probably reach that, yes.
- Q. And just following up on this prior comment, you're not aware of any particular study of road erosion in the Illinois River Watershed; is that correct?
  - A. No, I'm not. That's correct.
- Q. The next page you have got a chart there, Erosion for Roads and Ditches Predicted by Computer Model, and you have got paved, gravel and dirt and some modeled erosion rates.

So even a paved road can result in erosion?

A. The paved road has a ditch associated with it, and if the ditch is eroding, there will be sediment production.